Listing of the Claims

The listing of claims below, wherein underlining indicates additions and strikethrough indicates deletions, will replace all prior versions and listings of claims in the application:

1. **(Canceled)**

2. **(Currently amended)** The method of claim [[1]] 9, further comprising:

(e) adjusting a quantization value associated with said selected set of video data in response to said normalized spatial activity value.

3. **(Original)** The method of claim 2, further comprising:

(f) repeating steps (c) through (e) for one or more additional selected sets of said sets of video data.

4. **(Original)** The method of claim 3, further comprising:

(g) repeating steps (a) through (f) for one or more additional frames defined by said bitstream.

5. **(Original)** The method of claim 4, wherein said average spatial activity value associated with said selected frame is estimated in response to a previous average spatial activity value associated with a previous frame and a ratio of the number of bits representing said selected frame and a number of bits representing said previous frame.

6. **(Currently amended)** The method of claim [[1]] 9, wherein said spatial activity value is determined in response to a number of frequency domain coefficients in said selected set of video data.

7.   (**Currently amended**) The method of claim [[1]] 9, wherein said spatial activity value is determined in response to values of frequency domain coefficients in said selected set of video data.

8.   (**Currently amended**) The method of claim [[1]] 9, wherein said spatial activity value is determined in response to a quantization value associated with said selected set of video data.

9.   (**Currently amended**) ~~The method of claim 1,~~ A method of processing a bitstream in a digital video transcoder, comprising:

     (a) determining an adjustment factor that is a ratio of a number of bits representing a selected frame defined by said bitstream to a target number of bits for said selected frame;

     (b) determining an average spatial activity value among sets of video data associated with said selected frame;

     (c) determining a spatial activity value for a selected set of said sets of video data; and

     (d) computing a normalized spatial activity value for said selected set of video data in response to said average spatial activity value, said spatial activity value, and a function of said adjustment factor;

wherein said normalized spatial activity value is computed using a second function, defined by:

$$N\_act_j = \frac{f(\text{rcFactor}) \times act_j + avg\_act}{act_j + f(\text{rcFactor}) \times avg\_act},$$

where j represents said selected set of video data, N_act_j is said normalized spatial activity, rcFactor is said adjustment factor, f is said function of said adjustment factor wherein f is not a constant function, act_j is said spatial activity value, and avg_act is said average spatial activity value.

10.   (**Previously presented**) The method of claim 9, wherein adjustment is conditional on said function of bits being unequal to said target number of bits, and wherein said function of said adjustment factor is defined by:

$$f(\text{rcFactor}) = \text{rcFactor}.$$

11.　　**(Original)** The method of claim 9, wherein said second function is approximated using a piecewise continuous function.

12.　　**(Previously presented)** The method of claim 9, further comprising:

(e) adjusting a quantization value associated with said selected set of video data in accordance with a third function, defined by:

$$outQL = inQL \times rcFactor \times N\_act_j,$$

where outQL is said adjusted quantization value and inQL is said quantization value, and wherein adjustment is conditional on said number of bits being unequal to said target number of bits.

13.　　**(Canceled)**

14.　　**(Currently amended)** The method of claim [[13]] 23, further comprising:

(e) adjusting a quantization value associated with said selected macroblock in response to said normalized spatial activity value.

15.　　**(Original)** The method of claim 14, further comprising:

(f) repeating steps (c) through (e) for one or more additional selected macroblocks of said macroblocks.

16.　　**(Original)** The method of claim 15, further comprising:

(g) repeating steps (a) through (f) for one or more additional frames defined by said bitstream.

17.　　**(Original)** The method of claim 16, wherein said average spatial activity value associated with said selected frame is estimated in response to a previous average spatial activity value associated with a previous frame and a ratio of the number of bits representing said selected frame and a number of bits representing said previous frame.

18.　　**(Original)** The method of claim 17, wherein each frame defined by said bitstream is one of an I-type, a P-type, and a B-type, and wherein said previous frame and said selected frame are of identical types.

19.　　**(Original)** The method of claim 17, wherein each frame defined by said bitstream is one of a first type and a second type, said first type being defined by an I-frame or a P-frame, and said second type being defined by a B-frame, and wherein said previous frame and said selected frame are of identical types.

20.　　**(Currently amended)** The method of claim [[13]] 23, wherein said spatial activity value is determined in response to discrete cosine transform (DCT) coefficients associated with said selected macroblock.

21.　　**(Original)** The method of claim 20, wherein step (c) further comprises:

(c1) identifying coded luma blocks in said selected macroblock using a coded block pattern recovered from said bitstream;

(c2) determining a number of DCT coefficients among said identified coded luma blocks; and

(c3) defining said spatial activity value with respect to said number of DCT coefficients among said identified coded luma blocks.

22.　　**(Original)** The method of claim 20, wherein step (c) further comprises:

(c1) identifying coded luma blocks and coded chroma blocks in said selected macroblock using a coded block pattern recovered from said bitstream;

(c2) determining a number of DCT coefficients among said identified coded luma blocks and coded chroma blocks; and

(c3) defining said spatial activity value with respect to said number of DCT coefficients among said identified coded luma blocks and coded chroma blocks.

23.　　**(Currently amended)** ~~The method of claim 13,~~ A method of processing a bitstream in a digital video transcoder, comprising:

(a) determining an adjustment factor that is a ratio of a number of bits representing a selected frame defined by said bitstream to a target number of bits for said selected frame;

(b) determining an average spatial activity value among macroblocks associated with said selected frame;

(c) determining a spatial activity value for a selected macroblock; and

(d) computing a normalized spatial activity value for said selected macroblock in response to said average spatial activity value, said spatial activity value, and a function of said adjustment factor;

wherein said normalized spatial activity value is computed using a second function, defined by:

$$N\_act_j = \frac{f(\text{rcFactor}) \times act_j + avg\_act}{act_j + f(\text{rcFactor}) \times avg\_act},$$

where j represents said selected set of frequency domain coefficients, N_act_j is said normalized spatial activity, rcFactor is said adjustment factor, f is said function of said adjustment factor wherein f is not a constant function, act_j is said spatial activity value, and avg_act is said average spatial activity value.

24. (**Previously presented**) The method of claim 23, wherein adjustment is conditional on said function of bits being unequal to said target number of bits, and wherein said function of said adjustment factor is defined by:

$$f(\text{rcFactor}) = \text{rcFactor}.$$

25. (**Original**) The method of claim 23, wherein said second function is approximated using a piecewise continuous function.

26. (**Canceled**)

27. (**Currently amended**) Apparatus for processing a bitstream in a digital video transcoder, comprising:

means for determining a ratio of a number of bits representing a selected frame defined by said bitstream to a target number of bits for said selected frame to define an adjustment factor;

means for determining an average spatial activity value among sets of frequency domain coefficients associated with said selected frame, each of said sets of frequency domain coefficients having at least one frequency domain coefficient;

means for determining a spatial activity value for a selected set of said sets of frequency domain coefficients; and

means for computing a normalized spatial activity value for said selected set of frequency domain coefficients in response to said average spatial activity value, said spatial activity value, and a function of said adjustment factor[[.]];

wherein said normalized spatial activity value is computed using a second function, defined by:

$$N\_act_j = \frac{f(\text{rcFactor}) \times act_j + avg\_act}{act_j + f(\text{rcFactor}) \times avg\_act},$$

where j represents said selected set of frequency domain coefficients, N_act$_j$ is said normalized spatial activity, rcFactor is said adjustment factor, f is said function of said adjustment factor wherein f is not a constant function, act$_j$ is said spatial activity value, and avg_act is said average spatial activity value.

28.   (**Currently amended**) A computer readable storage medium encoding program instructions for causing a computer to process a bitstream, the instructions comprising steps for:

(a) determining an adjustment factor that is a ratio of a number of bits representing a selected frame defined by said bitstream to a target number of bits for said selected frame;

(b) determining an average spatial activity value among sets of video data associated with said selected frame;

(c) determining a spatial activity value for a selected set of said sets of video data; and

(d) computing a normalized spatial activity value for said selected set of video data in response to said average spatial activity value, said spatial activity value, and a function of said adjustment factor[[.]];

wherein said normalized spatial activity value is computed using a second function, defined by:

$$N\_act_j = \frac{f(\text{rcFactor}) \times act_j + avg\_act}{act_j + f(\text{rcFactor}) \times avg\_act},$$

where j represents said selected set of frequency domain coefficients, N_act_j is said normalized spatial activity, rcFactor is said adjustment factor, f is said function of said adjustment factor wherein f is not a constant function, act_j is said spatial activity value, and avg_act is said average spatial activity value.